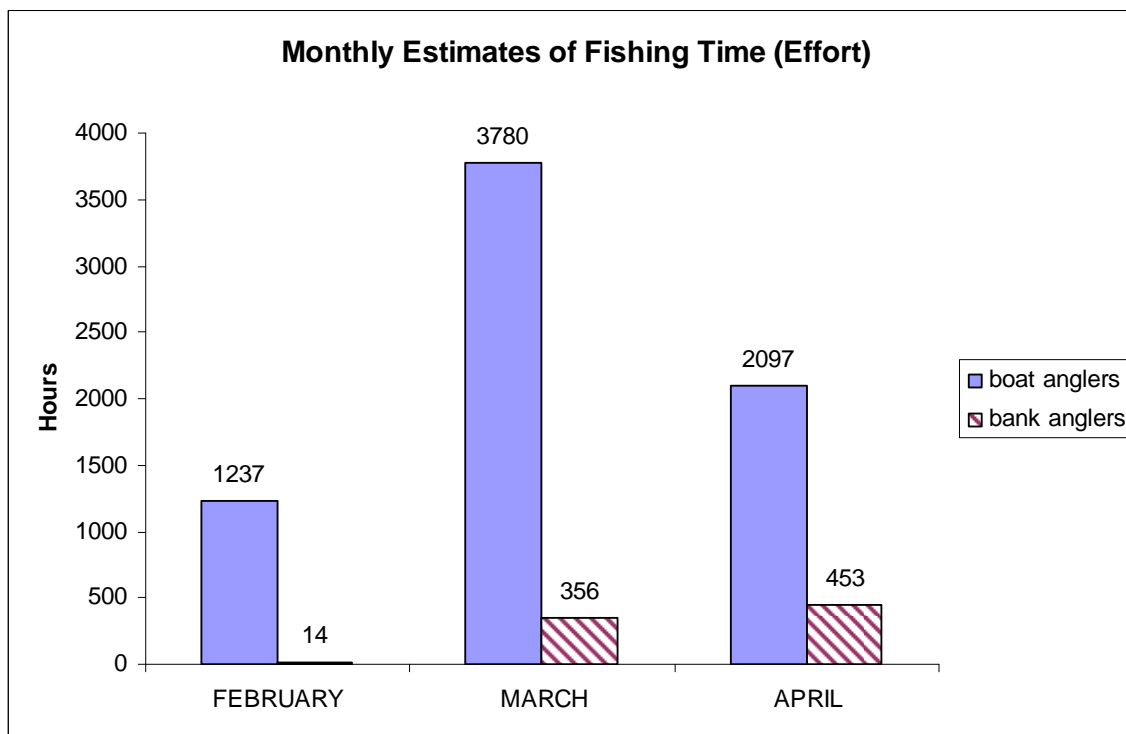




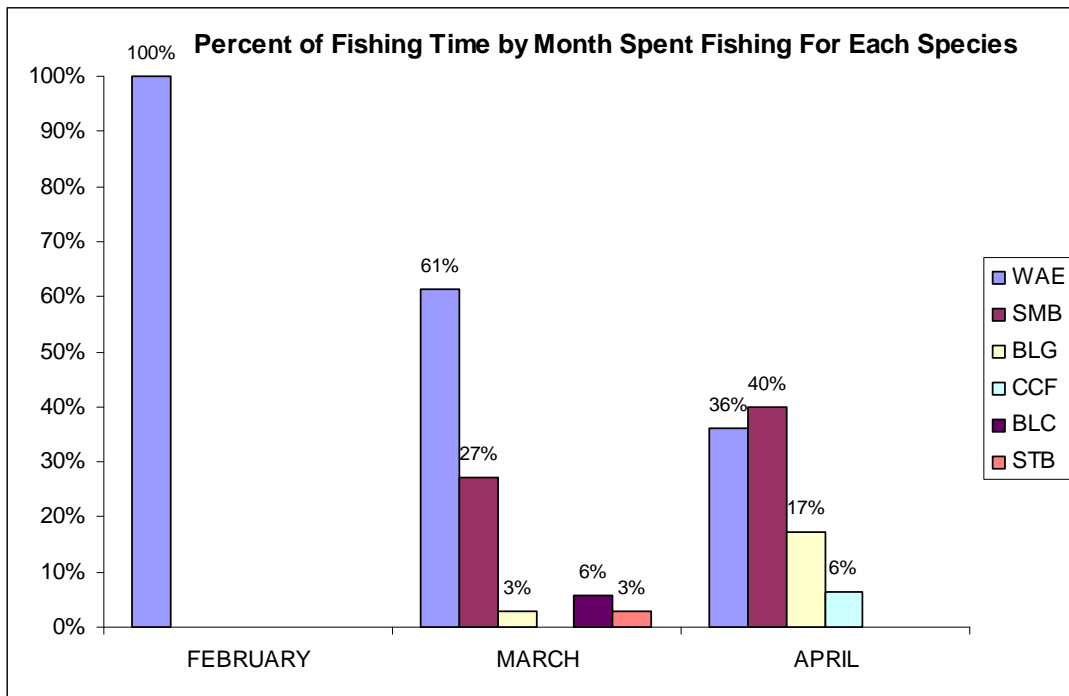
New River (Walleye Angler Survey)

In 2007, a walleye angler survey was conducted during the peak fishing months from February-April on the upper new River between Allisonia and Buck Dam in Pulaski, Wythe, and Carroll Counties. The total distance surveyed was approximately 35 kilometers. The objectives of the peak season walleye angler survey were to estimate fishing effort, catch, and harvest on the walleye fishery and to gather economic and opinion data associated with this seasonal fishery. The survey targeted walleye anglers at 5 boat launching locations in an attempt to gather completed fishing trip information. The following report summarizes the results of this survey.

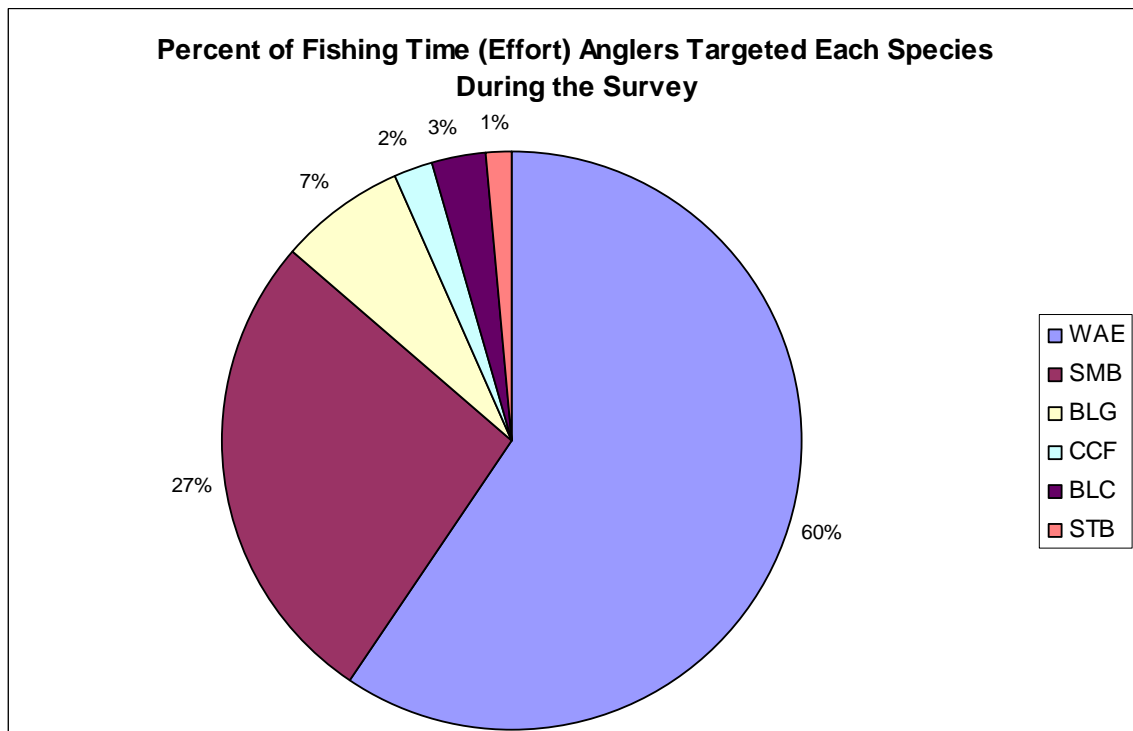
The total estimated time anglers spent fishing during the survey period was 7,937 hours. This fishing time, (known as fishing effort) was measured for bank and boat anglers and is displayed in the following graph. Most of the fishing effort was from boat anglers 90%, while bank anglers made up 10% of the fishing effort.



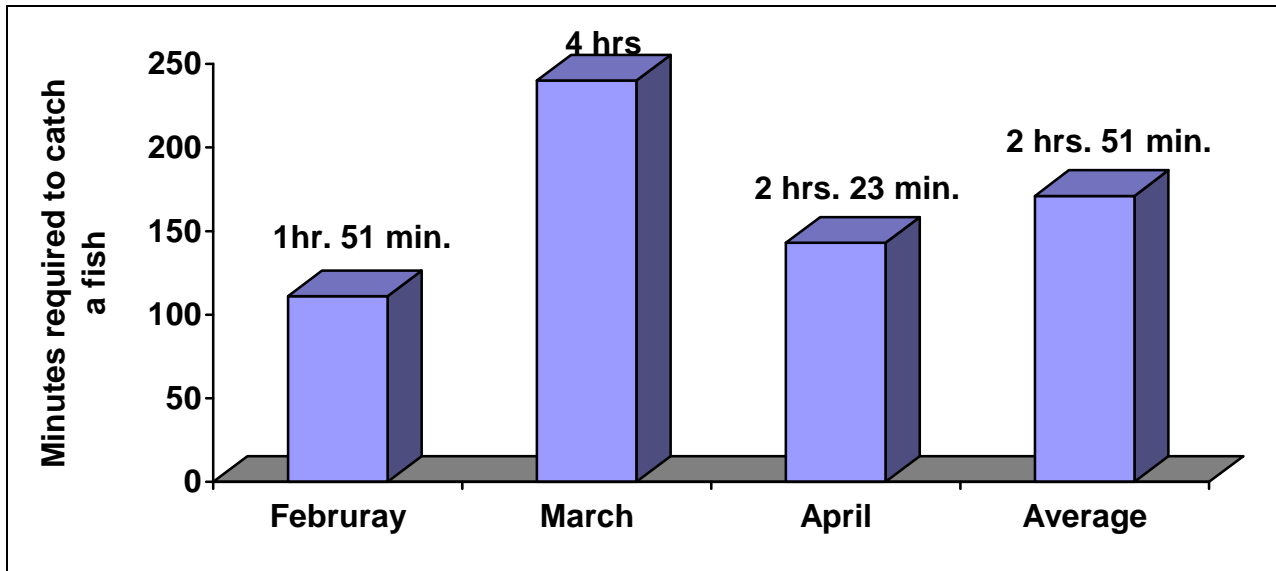
Anglers surveyed during the study were questioned about what species of fish they were fishing for. Anglers targeted walleye (WAE), smallmouth bass (SMB), bluegill (BLG), channel catfish (CCF), black crappie (BLC) and striped bass (STB). The following graph shows the percent of fishing time by species for each month for the survey period.



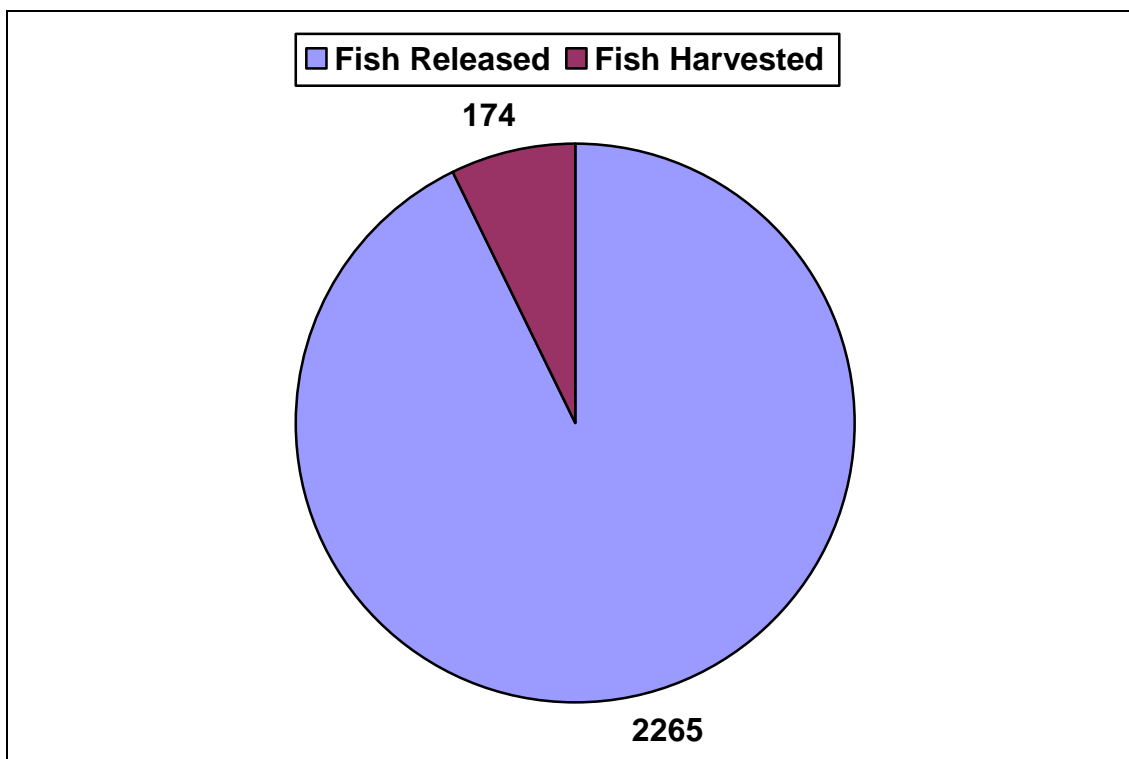
Walleye and smallmouth bass were the most popular species targeted by anglers during the survey period. The following chart shows the total percent of time anglers focused on each species for the entire survey.



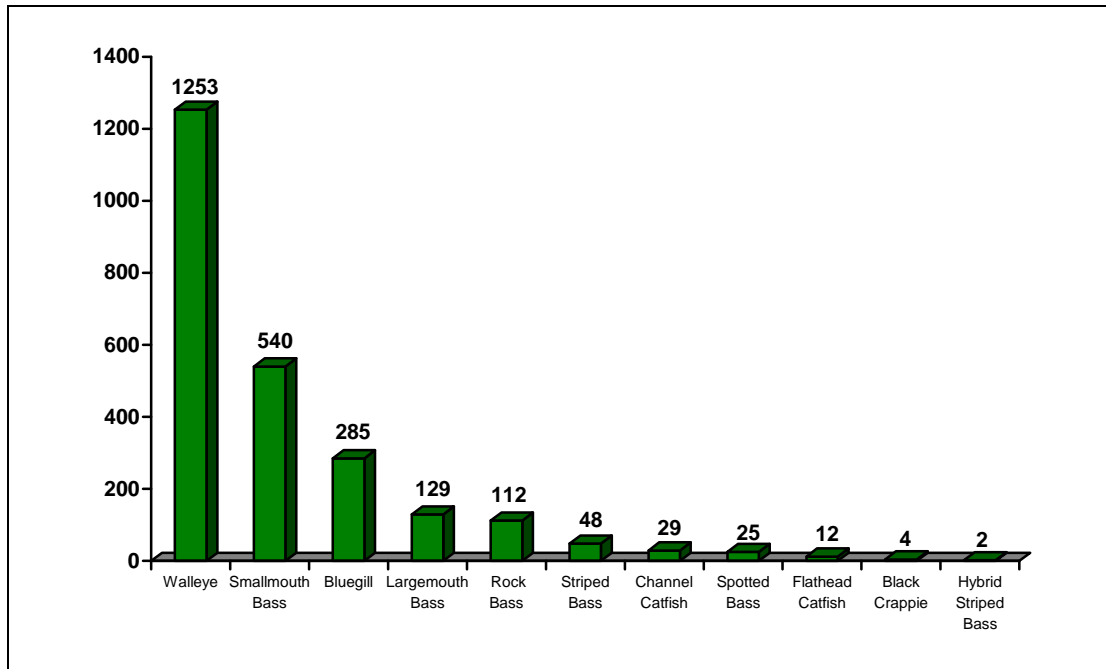
The amount of time an angler had to fish in order to catch a fish differed during the survey months. On average, during the survey, anglers caught a fish every 2 hours and 51 minutes, and of those fish, about 1 out of every 10 were harvested. The following graph shows by month how long it took anglers to catch a fish (any species).



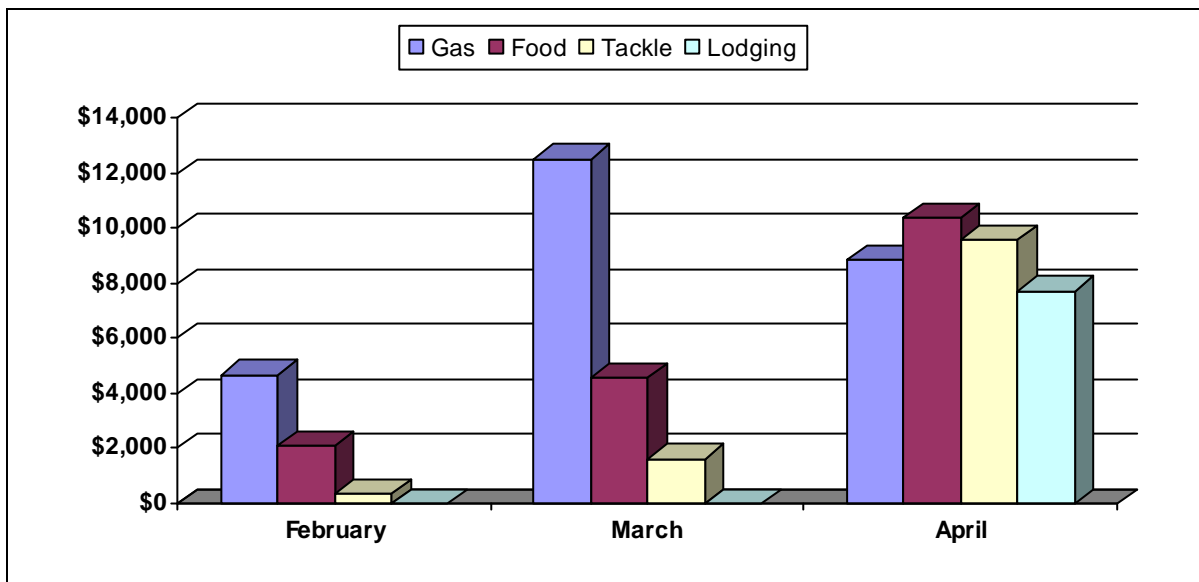
The data collected from the survey indicated that an estimated 2,439 fish of all types were caught by anglers during the months of February, March, and April. The following chart shows what anglers did with those fish.



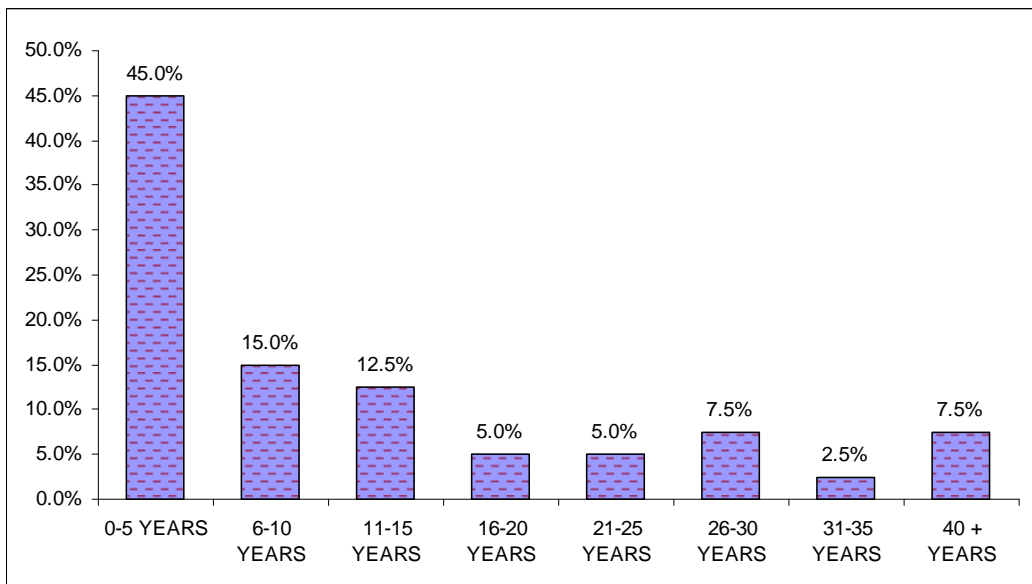
There were eleven different species of fish caught by anglers during the survey. Walleye and smallmouth bass were the most abundant species shown by the following chart.



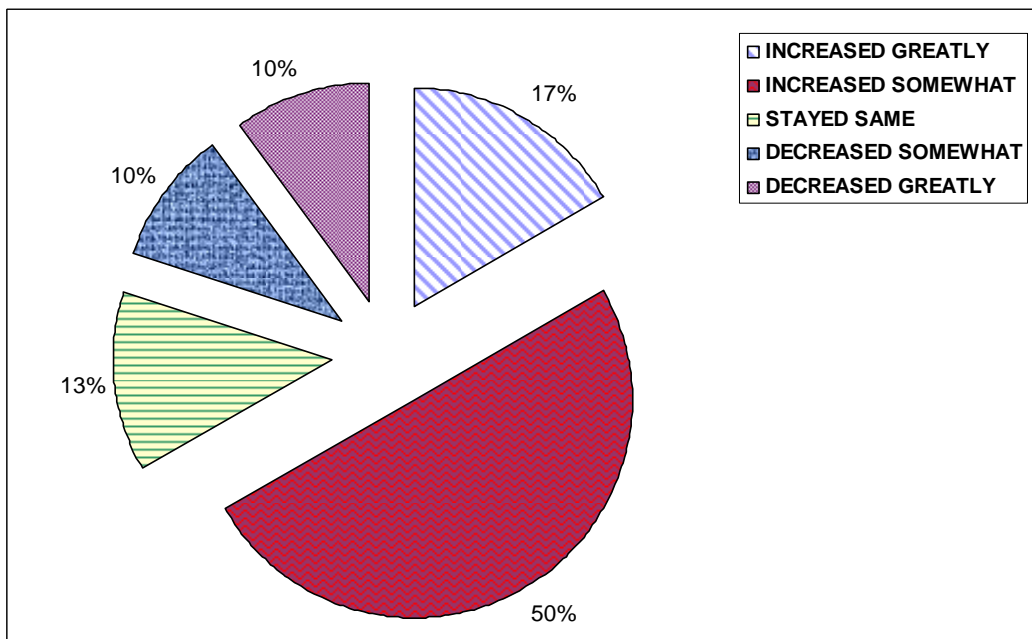
During the survey, anglers were questioned about the amount of money they spent in order to fish the upper New River. Specifically, the amount of money spent on gas, food, bait and tackle, and lodging were the categories used to quantify the total amount spent. It is estimated that \$62,315 dollars were spent by anglers to fish during the months of February, March, and April of 2007. The following chart summarizes the monthly expenditures.



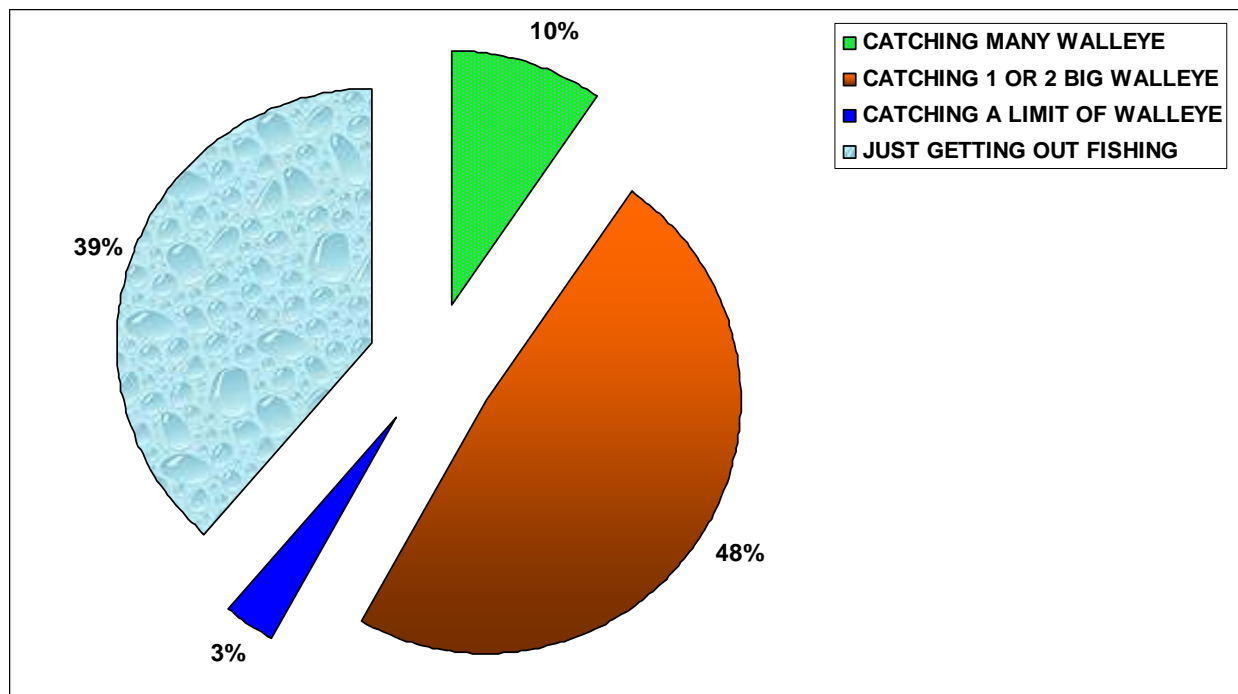
Anglers were surveyed about some specific facts related to the upper New River walleye fishery. The following results only applied to anglers who were targeting walleyes. Walleye anglers were asked about the number of years experience they had fishing for walleye. The following figure summarizes the years of walleye fishing experience for upper New River walleye anglers.



Walleye anglers were asked about walleye fishing success on the upper New River over the past 4 years. In particular, did they think the walleye fishing was getting better or worse. Eighty percent of walleye anglers questioned responded by rating the walleye fishing success over the past 4 years as having stayed the same or increased. Walleye anglers gave the walleye fishery in the upper New River a good to excellent rating overall.



Walleye anglers also agreed with the Virginia Department of Game and Inland Fisheries management of the upper New River walleye fishery. The majority of walleye anglers surveyed (77%) agreed with the 20 inch minimum size limit and 85% of walleye anglers considered a quality size walleye to be 20 inches or larger. Walleye anglers were divided on the specifics of what makes a successful walleye fishing trip, but most felt that catching one or two big walleyes and just getting out to fish made a trip successful as noted in the graph below.



The 2007 peak season walleye angler's survey on the upper New River will serve as a baseline measure for future walleye management in the New River system. Anglers spent approximately 7,937 hours fishing in February, March, and April. It took anglers approximately 2.9 hours to catch walleye. Most of the walleye caught (97%) were less than the legal 20 inch minimum size limit. Anglers are generally pleased with the walleye fishery and supportive of the management of walleye in the river. Anglers offer the best information about how to measure the success of a fishery, and this survey helps to prove that the Department is doing what it can to help anglers catch more fish in the New River system.



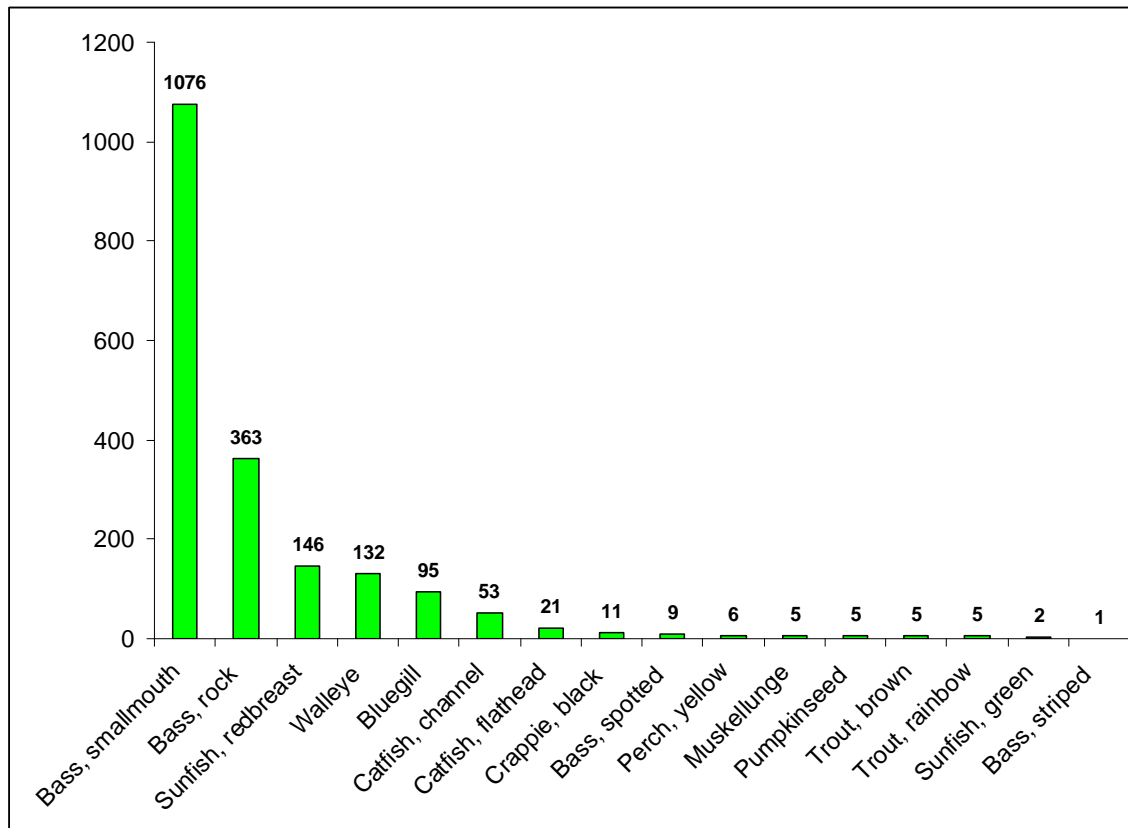
Upper New River 2008

Introduction

The upper New River in Virginia is considered to be the 80-mile section of the river upstream of Claytor Lake, to the Virginia-North Carolina line above Mouth of Wilson in Grayson County, Virginia. This section of the New River is managed separately from the lower river downstream of Claytor Lake. This report summarizes the annual sampling results collected in 2007 and compares them with past collections from 2000-06.

General Sport Fishery

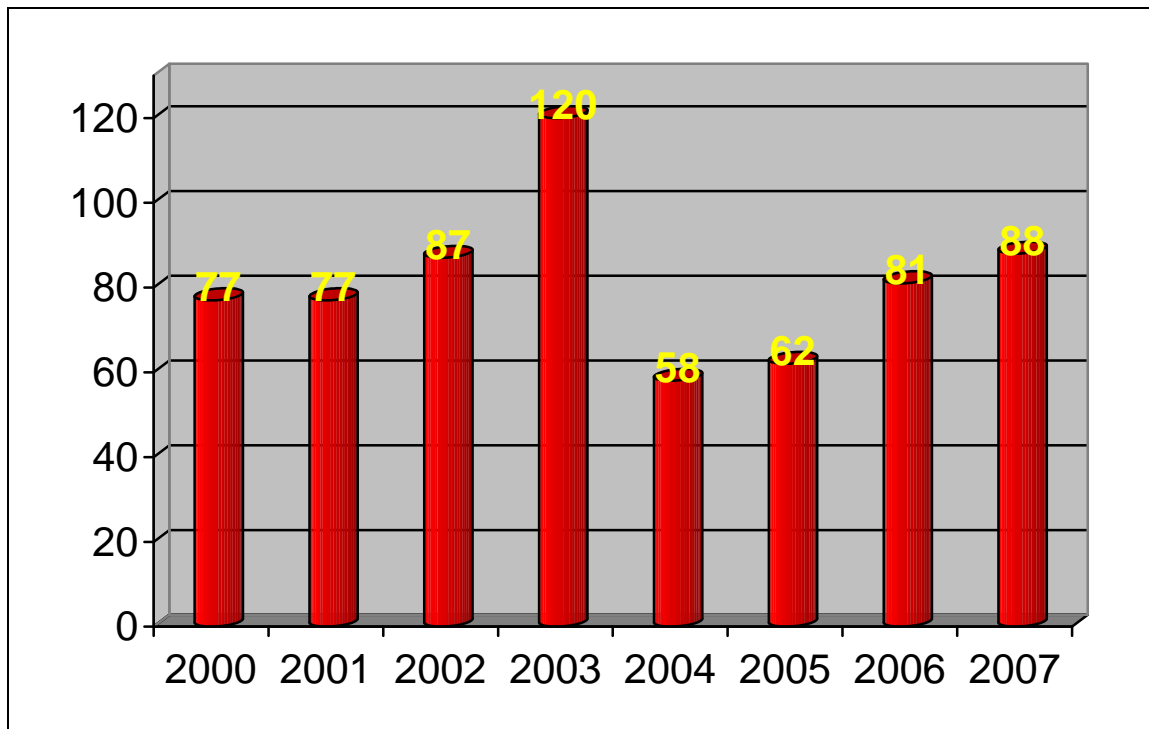
In 2007 considerable effort was made to conduct qualitative sampling. Twelve sampling sites were investigated qualitatively. Sixteen different species of sport fish were collected in qualitative samples in 2007. The following graph shows the catch collected for 2007.



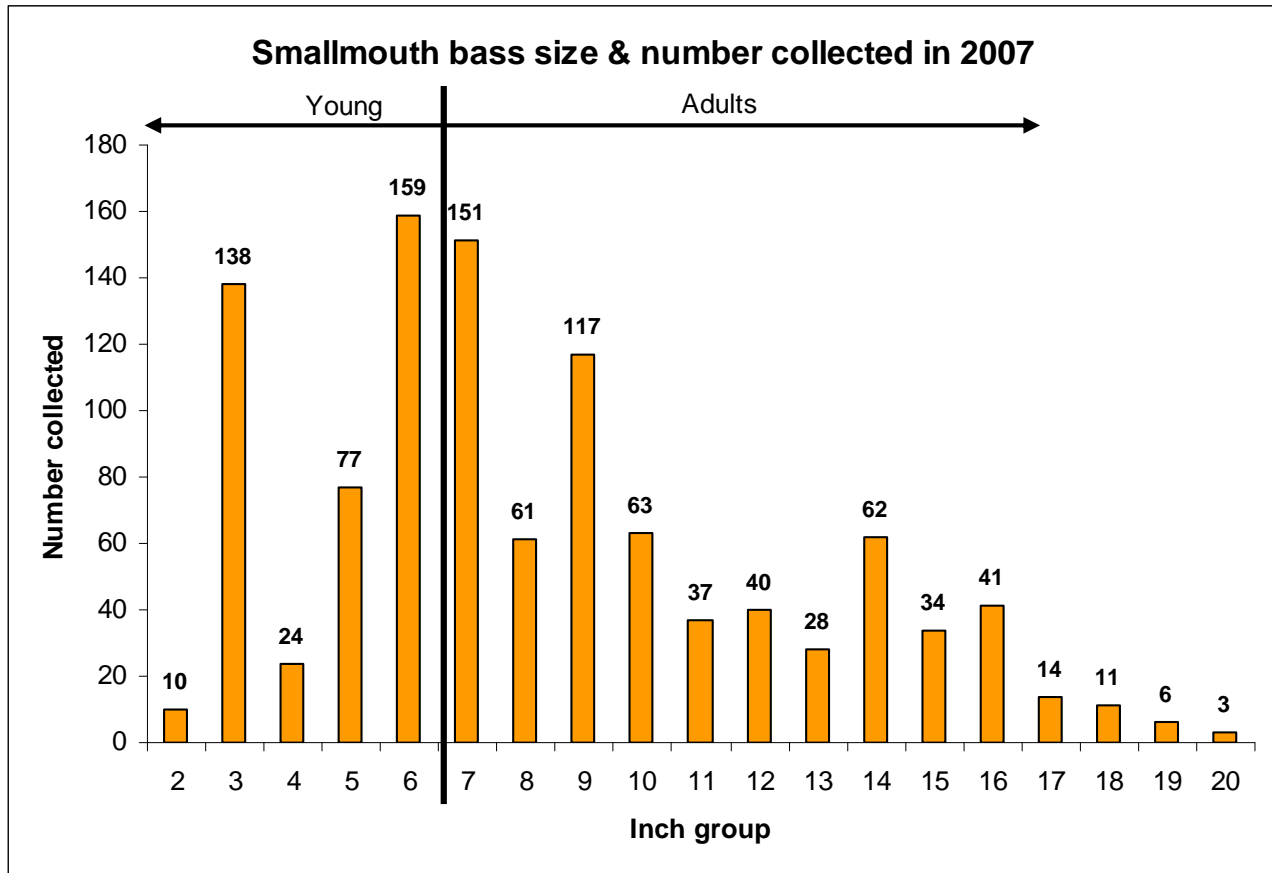
Fish population samples collected were dominated by smallmouth bass. Of the combined total catch of sport fish (N=1,935), smallmouth bass (N=1,076) comprised 56% of total catch. While other sport fish species are managed in the river, no other species is collected as abundantly as smallmouth bass.

Smallmouth Bass Fishery

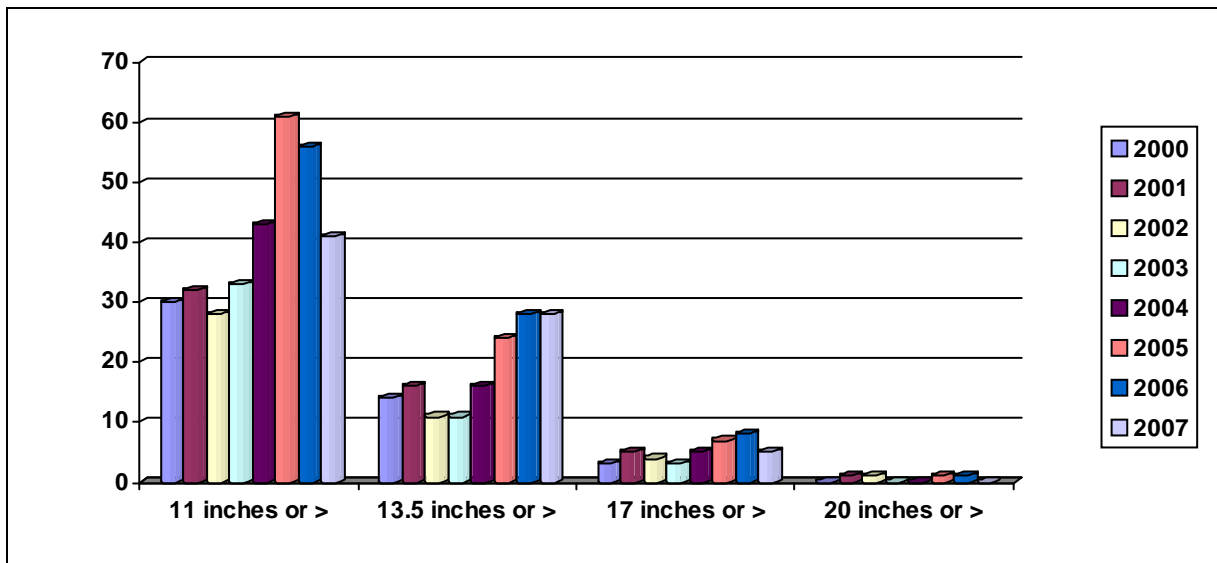
Smallmouth bass are the most abundant sport fish in the upper New River. On average, 88 smallmouth bass were collected in an hour (n = 12.25 hrs, standard deviation = 29.3, range = 43–142/hour) of sampling in 2007. Catch per hour exceeds the statewide average of 60 bass per hour for rivers in Virginia. The 2007 catch rate is slightly higher than 2006 as shown in the following graph.



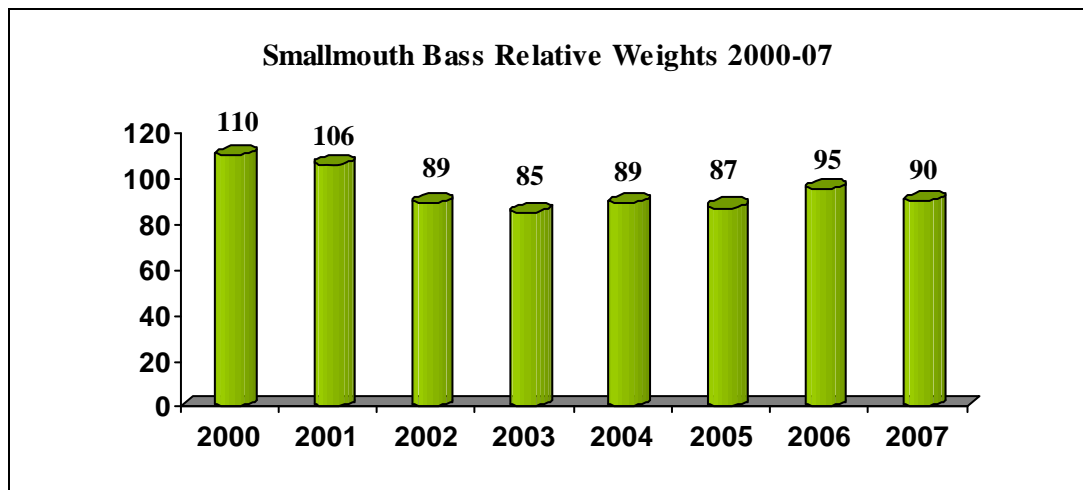
The size of smallmouth bass collected ranged from approximately 2-20 inches. Smallmouth bass collected are placed in one of two size groupings; young (7 inches or less) and adult (greater than 7 inches). In 2007, 408 young smallmouth bass were collected with the average size equal to 5.3 inches. There were 668 adult smallmouth bass collected with the average size equal to 11.4 inches. The average size of adult smallmouth bass collected in 2007 did not differ significantly from the average size collected in 2006 ($T = 1.75$, $P=0.08$, $DF=1369$). The following graph shows the size and number of smallmouth bass collected in 2007 and the young/adult separation.



Of the adult (all fish 7 inches or larger) smallmouth bass collected, the PSD (Proportional Stock Density is an index that measures the percentage of adult fish that are 280mm (11 inches) or larger in the population) measured 41 in 2007. This means that approximately 41% of all adult smallmouth bass collected in 2007 were 280mm (11 inches) or larger. The percentage of adult fish 350mm (13.5 inches) or larger in the collection was 28%. The percentage of adult fish that were 430mm (17 inches) or larger in the collection was 5%. Based on current data, the size structure is stable, and the numbers of larger smallmouth in the population (15 inches or larger) may be increasing slightly. The following figure shows the size range of smallmouth bass by percentage for collections made from 2000-07.



Body condition of smallmouth bass is measured by relative weight (Wr). Relative weight is an index of the fatness or plumpness of a fish. When a fish is in a good condition or good health the relative weight is measured close to 100. When relative weights are well below 100 the fish may have trouble feeding, causing the body condition to be less. The average relative weight or condition of smallmouth bass in 2007 was 90, indicating that these fish are healthy and have maintained a stable body condition for several years as show below.

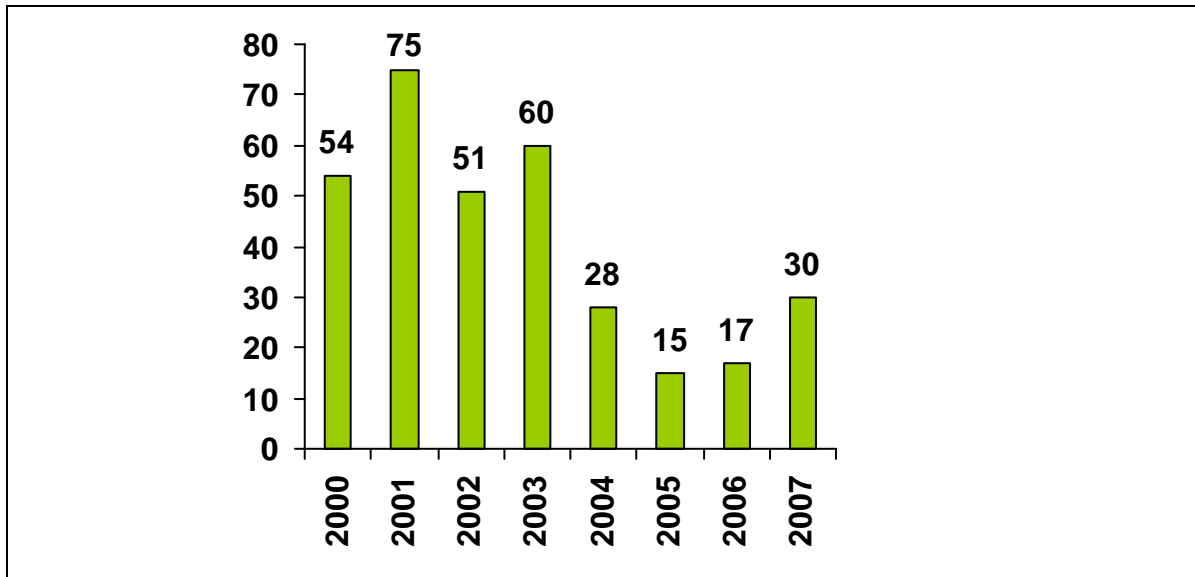


The age structure of the smallmouth bass population was examined in 2001, 2002, and 2003. Smallmouth bass collected ranged from age 1 to 13 years old. These fish are considered fast growing when compared to other smallmouth bass population in Virginia. The following table is an approximation of smallmouth bass growth rates. Age 2-4 year old fish are the most abundant in the population. The older age groups are fewer in number and less abundant. Fish reach trophy size (20 inches) in 10-13 years. Based on our most recent population age data from 2003, it is estimated that total annual mortality is approximately 40% and survival is 60%.

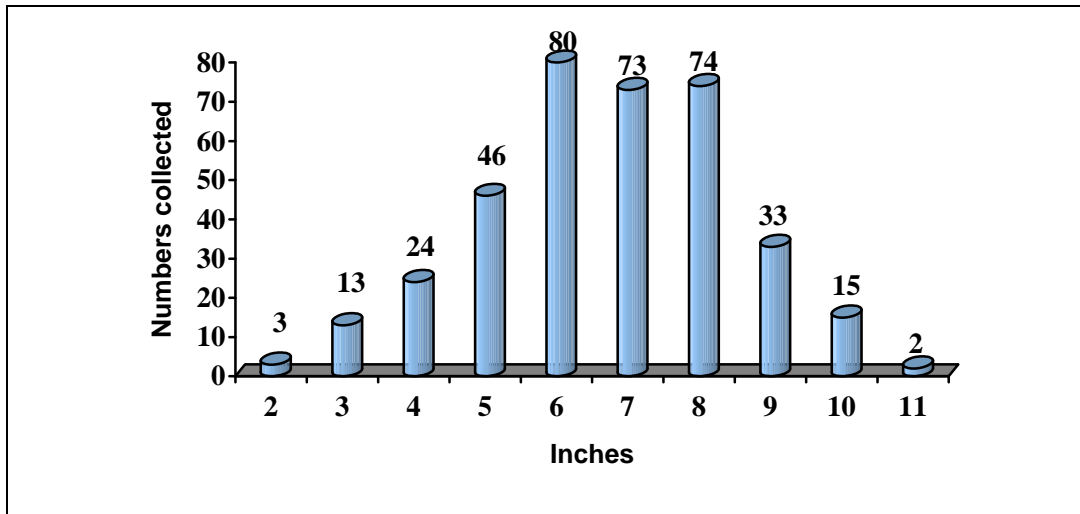
Age	Avg. Length
1	4.13
2	6.56
3	8.81
4	11.07
5	12.75
6	14.50
7	15.31
8	16.61
9	17.19
10	18.47
11	19.08
13	19.69

Rock Bass Fishery

Rock bass are the second most abundant sport fish collected in fish population samples. On average, 30 rock bass were collected in one hour of sampling in 2007. Catch varies from year to year but decreased significantly since 2003. The following figure shows average catch per hour for rock bass from 2000-07.



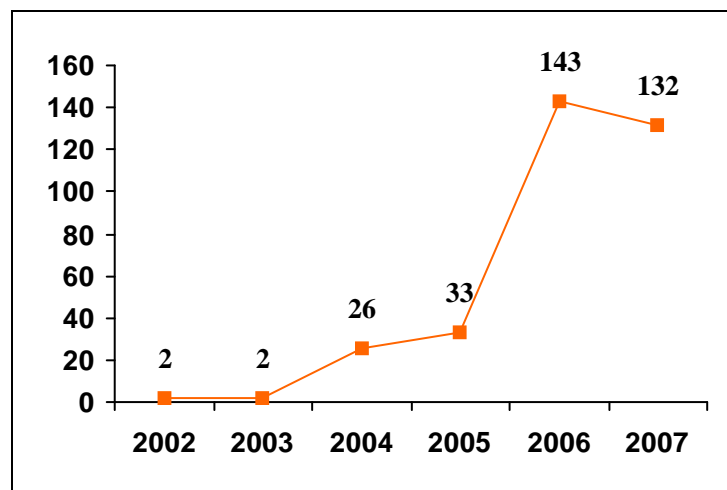
The average size of rock bass collected was 158mm (6.2 inches, n=363, standard deviation = 1.7, range = 2-11 inches). While overall catch rate declined since 2003 samples, the size of rock bass collected did increase slightly from previous years collections.



Rock Bass PSD (Proportional Stock Density is an index that measures the percentage of adult fish that are 180mm (7 inches) or larger in the population) measured 28, 30, 35, 40, 36, 44, 54 and 35 from 2000-2007 with an average PSD of 38. This means that approximately 38% of all rock bass in the population are 7 inches or larger. The condition of rock bass is good and has remained that way with the average relative weight (Wr) equal to 106.

Walleye Fishery

Walleye are an abundant sport fish collected in fish population samples. On average, 17 walleye were collected in one hour of sampling in 2007 from Fries Dam downstream to the headwaters of Claytor Lake. Walleye catch has been on a steady increase since 2002 in this area with increased stocking of New River walleye. The following figure shows total catch of walleye between Fries downstream to Allisonia from 2002-07.



The average size of walleye collected was 391mm (15.4 inches, n=132, standard deviation = 2.47 inches, range = 8-30 inches). While catch rate increased since 2002 samples, the average size of walleye collected is below the 20 inch size limit and will

remain there for several more years. Walleye PSD (Proportional Stock Density is an index that measures the percentage of adult fish that are 380mm (15 inches) or larger in the population) measured 30 in 2005, 22 in 2006 and 54 in 2007. This means that approximately 54% of all walleye in the population surveyed in 2007 are 15 inches or larger. The condition of walleye measured by average relative weight (Wr) was 81 in 2005, 89 in 2006 and 84 in 2007.

Fishing the Upper New River in 2008

The low water in 2007 may carry over into 2008 if winter and spring rains are limited, and this could make fishing difficult in low clear water conditions. Smallmouth bass should be abundant. The 2004 and 2005 year classes of smallmouth bass are coming on strong and should result in an increase in the catch. There are still good numbers of fish in the 10-14 inch range and several larger fish are swimming around. Fishing for walleye is getting better every year from Fries Dam down to Claytor Lake due to the Department's stocking efforts. Catch rates of walleye from sampling in 2007 are good, and creel survey information indicates anglers are catching good numbers of walleye. Rock bass and redbreast sunfish continue to be abundant and will provide fun fishing opportunities. Anglers may also encounter an occasional channel or flathead catfish and maybe even a muskie. Overall, there should be fair fishing on the upper New River in 2008.

Future Fisheries Management Plans

Walleye fingerlings will continue to be stocked and monitored in an ongoing effort to increase the abundance of walleye in this portion of river. Channel catfish will be stocked in the pool area behind Fields Dam at Mouth of Wilson, and all populations of sport fish will be monitored annually in the spring.

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